



Used Oil: On-Site Burning in Space Heaters

Technical Guidance Document HW 98-02

This guidance document describes the requirements of 40 CFR Part 279, the federal used oil regulations as they apply to the burning of used oil in oil-fired space heaters.

Federal regulations for burning used oil in oil-fired space heaters (279.23) include the following:

- (1) The heater must be designed to have a maximum capacity of not more than 0.5 million Btu per hour;
- (2) The combustion gases from the heater must be vented to the outside of the building; and
- (3) The heater may burn used oil from the following sources:

- Used oil that the owner or operator generates.
- Untested oil generated off-site from household do-it-yourselfers, but not from businesses. Oil-fired space heaters are designed to burn used oil; not solvents, anti-freeze, brake fluid, gasoline, or other materials that could be mixed in with the used oil from various businesses. Without testing, the owner cannot be certain that used oil from a business is uncontaminated. (NOTE: Farmers who generate an average of 25 gallons or less of used oil from vehicles or machinery used on the farm in a calendar year are considered to be the same as household do-it-yourselfers.)

40 CFR 279.11 provides one other opportunity to obtain used oil for use in space heaters under these regulations. If the used oil is determined to be "**on-spec**" **used oil**, and the person making that

determination complies with 279.72, 279.73, and 279.74(b), the used oil is no longer subject to 40 CFR Part 279 as long as the used oil is burned for energy recovery. In order to make this determination, the oil must be analyzed for flash point, total halogens and four heavy metals (arsenic, cadmium, chromium, and lead) by a laboratory. If the oil does not exceed the levels established for these constituents, then the oil is "on-spec". These levels are shown below.

Used Oil Specifications

Maximum Allowable Levels

<i>Arsenic</i>	<i>5 ppm</i>
<i>Cadmium</i>	<i>2 ppm</i>
<i>Chromium</i>	<i>10 ppm</i>
<i>Lead</i>	<i>100 ppm</i>
<i>Total Halogens</i>	<i>1,000 ppm</i>

Minimum Flash Point *100°F*

Used oil that is determined by testing to be "on-spec" can be acquired from various used oil processors, re-refiners or even directly from generators. The recipient should request a copy of the analysis of the used oil when the used oil is acquired and keep this record for at least three years.

For additional information regarding proper management of hazardous waste, you may contact the Bureau of Waste Management at (785)296-1600 or the address at the top of this document.